

Tutorial 2

The following are multiple-choice questions. Please select the correct answer.

1. Which best describes a network segment:

- A. A network which contains a range of network addresses
- B. A network which contains a range of station addresses
- C. A network which has the same network topology
- D. A network which is bounded by routers or bridges

2. On a network which address does a bridge route with:

- A. IP address
- B. Interrupt address
- C. MAC address
- D. Source address

3. On a network which address does a router route with:

- A. IP address
- B. Interrupt address
- C. MAC address
- D. Source address

4. On a network which address does a data frame use:

- A. IP address
- B. Interrupt address
- C. MAC address
- D. Source address

5. Which term is used for both multi-port repeaters and for the centre of a star topology network:

- A. Bridge
- B. Port
- C. Hub
- D. File server

6. Which best describes a collision in an Ethernet network:

- A. The result of two nodes have the same IP address
- B. The result of two nodes transmitting simultaneously
- C. The result of two nodes having the same MAC address
- D. Two nodes with different network protocols

7. Which UNIX command is used to determine the IP address:

- A. IPCONFIG
- B. ifconfig
- C. settings
- D. ip ?

E. show ip

8. Which Windows command is used to determine the IP address:

- A. IPCONFIG
- B. ifconfig
- C. settings
- D. ip ?
- E. show ip

9. If a bridge detects that a destination address in a data frame is on the same network segment as the source:

- A. It passes the data frames between two network segments
- B. It forwards the data frame to all other network segments
- C. It stores the data frame for future transmission
- D. It does not forward the data frame to other network segments

10. Which device solves excessive broadcast traffic:

- A. Bridge
- B. Router
- C. Hub
- D. File server

11. Which of the following does not need to be set for a host to connect to the Internet/WWW:

- A. IP address
- B. Subnet mask
- C. Default gateway
- D. Default WWW page
- E. DNS server address

12. What is the function of the ARP table:

- A. It maps known MAC addresses to IP addresses
- B. Subnet mask
- C. Default gateway
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14. For the network architecture in Figure 1, define the broadcast domain for each of the nodes:

-
- | | |
|--------------|---------------|
| (i) Node A | (ii) Node B |
| (iii) Node C | (iv) Node D |
| (v) Node E | (vi) Node F |
| (vii) Node G | (viii) Node H |
| (ix) Node I | (x) Node J |
| (xi) Node K | |

15. For the network architecture in Figure 1, define the collision domain for each of the nodes:

-
- | | |
|--------------|---------------|
| (i) Node A | (ii) Node B |
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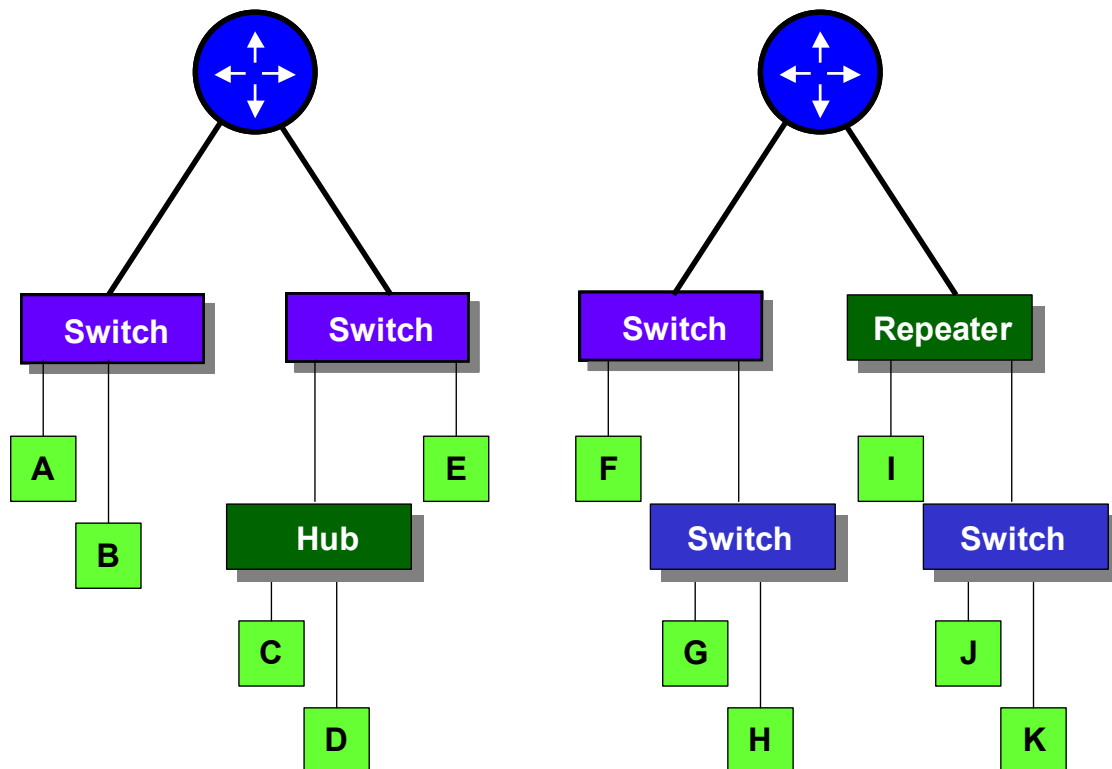


Figure 1: Network architecture